

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An electret filter media comprising a ~~meltblown polymer fiber~~ fibrous web having formed on at least one surface thereof a substantially continuous uniform thickness vapor deposition formed polymer coating that is a vapor deposition formed condensed liquid monomer polymerized onto fibers that form the fibrous web.
2. (Previously Presented) The electret filter media of claim 1, wherein the polymer coating is formed of an oleophobic and/or hydrophobic monomer selected from the group consisting of an alkylene, an acrylate, and a methacrylate, followed by the curing of the monomer.
3. (Original) The electret filter media of claim 2, wherein the monomer is halogenated.
4. (Original) The electret filter media of claim 3, wherein the monomer is a fluorine-containing monomer.
5. (Original) The electret filter media of claim 3, wherein the monomer is hexafluoropropylene.
6. (Original) The electret filter media of claim 1, wherein said filter media has a filter efficiency and degradation value of at least P 95.
7. (Original) The electret filter media of claim 1, wherein the polymer coating is a fluoropolymer.
8. (Original) The electret filter media of claim 7, wherein the fluoropolymer is selected from the group consisting of polytetrafluoroethylene and fluorinated ethylenepropylene.
9. (Currently Amended) The electret filter media of claim 1, wherein the ~~fiber~~ fibrous web is a meltblown polymer fiber web that is formed from polymers selected from the group consisting of polyolefins, acrylics, vinyl halides, polyvinyl ethers, polyvinyl halides, polyacrylonitrile, polyvinyl ketones, polyvinyl esters, polyamides, polyesters, polycarbonates, polyimides, polyethers, and fluoropolymers.

10. (Currently Amended) The electret filter media of claim 9, wherein said ~~fiber~~ fibrous web includes polymer fibers having a diameter in the range of between about ~~±0.5~~ to 20 μm .
11. (Currently Amended) The electret filter media of claim 1, wherein the weight of said ~~fiber~~ fibrous web is in the range of between about 10 to about 520 g/m^2 .
12. (Currently Amended) The electret filter media of claim 1, wherein a charge stabilizing additive is incorporated into the ~~fiber~~ fibrous web as a meltblown additive.
13. (Original) The electret filter media of claim 12, wherein the charge stabilizing additive is a fatty acid amide.
14. (Original) The electret filter media of claim 13, wherein the fatty acid amide is selected from the group consisting of stearamide, ethylene bis-stearamide, and ethylene bis-palmitamide.
15. (Currently Amended) The electret filter media of claim 12, wherein the charge stabilizing additive is present in the ~~meltblown-fiber~~ fibrous web at a concentration in a range from about 0.01% to 20% by weight.
16. (Currently Amended) ~~The~~ An electret filter media comprising of claim 1, wherein a fibrous web having a substantially uniform vapor deposition formed polymer coating thereon, the coating having has a thickness in the range of about 100 to 1500 50 Angstroms to 1 micron.
17. (Currently Amended) An electret filter media comprising ~~an oleophobic and/or hydrophobic vapor phase deposition treated electret polymer fiber~~ a fibrous web having a substantially uniform polymer coating that is a vapor deposition formed condensed liquid monomer polymerized onto fibers that form the fibrous web, and having a melt processable charge stabilizing additive within said web, wherein said additive is present at a concentration in a range from about 0.01% to 20% by weight.
18. (Currently Amended) The electret filter media of claim 17, wherein the ~~fiber web has a polymer coating formed thereon~~ has a thickness in the range of about 50 Angstroms to 1 micron.

19. (Currently Amended) The electret filter media of claim ~~18~~17, wherein the polymer coating is formed from the polymerization of a monomer selected from the group consisting of an alkylene, an acrylate, and a methacrylate.
20. (Original) The electret filter media of claim 19, wherein the monomer is halogenated.
21. (Original) The electret filter media of claim 20, wherein the monomer is a fluorine-containing monomer.
22. (Original) The electret filter media of claim 21, wherein the monomer is hexafluoropropylene.
23. (Original) The electret filter media of claim 17, wherein said filter media has a filter efficiency and degradation value of at least P 95.
24. (Currently Amended) The electret filter media of claim 17, wherein said ~~fiber~~ fibrous web includes polymer fibers having a diameter in the range of between about ~~10.5~~ to 20 μm .
25. (Currently Amended) The electret filter media of claim 17, wherein the weight of said ~~fiber~~ fibrous web is in the range of between about 10 to about 520 g/m^2 .
26. (Currently Amended) A respirator having a filter element comprising a ~~meltblown polymer-fiber~~ fibrous web having ~~formed on at least one surface thereof~~ a substantially continuous thickness uniform vapor phase deposition formed polymer coating that is a vapor deposition formed condensed liquid monomer polymerized by onto fibers that form the fibrous web.
27. (Previously Presented) The respirator of claim 26, wherein the polymer coating is formed of an oleophobic and/or hydrophobic monomer selected from the group consisting of an alkylene, an acrylate, and a methacrylate, followed by the curing of the monomer.
28. (Original) The respirator of claim 27, wherein the monomer is halogenated.

29. (Original) The respirator of claim 28, wherein the monomer is a fluorine-containing monomer.
30. (Original) The respirator of claim 29, wherein the monomer is hexafluoropropylene.
31. (Original) The respirator of claim 26, wherein the polymer coating is a fluoropolymer.
32. (Original) The respirator of claim 31, wherein the fluoropolymer is selected from the group consisting of polytetrafluoroethylene and fluorinated ethylenepropylene.
33. (Currently Amended) The respirator of claim 26, wherein the ~~polymer fiber~~ fibrous web is a meltblown polymer fiber web formed from polymers selected from the group consisting of polyolefins, acrylics, vinyl halides, polyvinyl ethers, polyvinyl halides, polyacrylonitrile, polyvinyl ketones, polyvinyl esters, polyamides, polyesters, polycarbonates, polyimides, polyethers, and fluoropolymers.
34. (Original) The respirator of claim 26, wherein a charge stabilizing additive is incorporated into the fiber web as a meltblown additive.
35. (Original) The respirator of claim 34, wherein the charge stabilizing additive is a fatty acid amide.
36. (Previously Presented) The respirator of claim 35, wherein the fatty acid amide is selected from the group consisting of stearamide, ethylene bis-stearamide, and ethylene bis-palmitamide.
37. (Currently Amended) The respirator of claim 34, wherein the charge stabilizing additive is present in the ~~meltblown fiber~~ fibrous web at a concentration in a range from about 0.01% to 20% by weight
38. (Withdrawn) A method for manufacturing an electret filter media comprising the steps of:
providing a ~~fiber~~ fibrous web;

vaporizing an oleophobic and/or hydrophobic monomer;
condensing the vaporized monomer onto ~~at least one surface of the fiber web~~ to form a monomer coating on the fibers that form the fibrous web;
exposing the monomer coating to sufficient energy to cause the monomer to polymerize, forming a polymer coated ~~fiber~~ fibrous web; and
treating the polymer coated ~~fiber~~ fibrous web to form substantially permanent charge pairs or dipoles in the ~~meltblown polymer fiber~~ fibrous web.

39. (Withdrawn) The method of claim 38, wherein the monomer is selected from the group consisting of an alkylene, an acrylate, and a methacrylate.
40. (Withdrawn) The method of claim 39, wherein the ~~fiber~~ fibrous web is a meltblown fiber web.
41. (Withdrawn) The method of claim 40, wherein the monomer is halogenated.
42. (Withdrawn) The method of claim 41, wherein the monomer is a fluorine-containing monomer.
43. (Withdrawn) The method of claim 42, wherein the monomer is hexafluoropropylene.
44. (Withdrawn) The method of claim 38, further comprising the step of annealing the ~~fiber~~ fibrous web at an elevated temperature prior to the step of condensing the vaporized monomer.
45. (Withdrawn) The method of claim 44, wherein the temperature is between about 65°C and 230°C.
46. (Withdrawn) The method of claim 44, wherein the ~~fiber~~ fibrous web is annealed for about 15 second to 5 minutes.
47. (Withdrawn) The method of claim 38, further comprising the step of preparing the surface of the ~~fiber~~ fibrous web prior to the step of vaporizing an oleophobic and/or hydrophobic monomer.

48. (Withdrawn) The method of claim 47, wherein the step of preparing the surface of the ~~fiber~~ fibrous web comprises applying a treatment selected from the group consisting of a plasma treatment, a heat treatment, and a flame treatment.
49. (Withdrawn) The method of claim 38, wherein the step of exposing the monomer coating to sufficient energy comprises applying an energy source selected from the group consisting of infrared, electron beam, thermionic, plasma, gamma, and ultraviolet radiation.
50. (Withdrawn) The method of claim 49, wherein the energy source has a wavelength of about 160 nm to 450 nm.
51. (Withdrawn) The method of claim 38, wherein a charge stabilizing additive is incorporated into the ~~fiber~~ fibrous web as a meltblown additive.
52. (Withdrawn) The method of claim 51, wherein the charge stabilizing additive is a fatty acid amide.
53. (Withdrawn) The method of claim 52, wherein the fatty acid amide is selected from the group consisting of stearamide, ethylene bis-stearamide, and ethylene bis-palmitamide.
54. (Withdrawn) The method of claim 53, wherein the charge stabilizing additive is present in the ~~meltblown-fiber~~ fibrous web at a concentration in a range from about 0.01% to 20% by weight.
55. (New) An electret filter media, comprising a fibrous web having a substantially uniform vapor deposition formed polymer coating thereon, the fibrous web having an alpha value of at least about 20.
56. (New) The electret filter media of claim 55, wherein the polymer coating has a thickness in the range of about 50 Angstroms to 1 micron.
57. (New) The electret filter media of claim 55, wherein the polymer coating has a thickness in the range of about 100 Angstroms to 1500 Angstroms.

58. (New) The electret filter media of claim 55, wherein the polymer coating is a monolithic coating.
59. (New) An electret filter media, comprising a fibrous web having a substantially uniform vapor deposition formed polymer coating thereon, the filter media has an alpha value above about 10 after a DOP test challenge loading over 200 mg of DOP at a face velocity of 16.4 fpm (85 lpm for 170 cm² test area).
60. (New) The electret filter media of claim 59, wherein the filter media has an alpha value above about 15 after a DOP test challenge loading over 200 mg of DOP at a face velocity of 16.4 fpm (85 lpm for 170 cm² test area).
61. (New) The electret filter media of claim 1, wherein the fibrous web is selected from the group consisting of a meltblown web, a carded web, a spunbond web, and a spun laced web.
62. (New) The electret filter media of claim 1, wherein the fibrous web is formed from fibers selected from the group consisting of polymer fibers and glass fibers.